



ABSTRACT

Superparamagnetic ("SPM") subunits of 1-30 nm average mean diameter (e.g. ferro fluid) subparticles are treated with a magnetically noninterfering substance capable of coating and covering them (e.g., BSA) and they spontaneously form agglomerates of about 100 nm to about 450 nm or higher average mean diameter and are then used to form complexes with target biological ligands such as viruses, contained in large volumes of liquid. The complexes are subjected to the gradient intensity of a strong magnetic field, and excess liquid is removed, whereupon an immunochromatographic assay is conducted to determine the identity and/or amount of target ligand present, in which operation SPM particles that bonded to the ligand function as tags for ligand detection.